



3. The borderless contact structure according to claim 1, wherein the device isolation region comprises a trench isolation region.

4. The borderless contact structure according to claim 3, further comprising a thermal oxide layer interposed between the semiconductor substrate and the trench isolation region.

5. The borderless contact structure according to claim 4, further comprising a silicon nitride liner interposed between the trench isolation region and the thermal oxide layer.

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6. The borderless contact structure according to claim 1, wherein the etch stop spacer comprises silicon nitride or silicon oxynitride.

7. The borderless contact structure according to claim 1, wherein the etch stop layer comprises silicon nitride or silicon oxynitride.

8. The borderless contact structure according to claim 1, further comprising an interconnection line filling the contact hole.

9. The borderless contact structure according to claim 1, further comprising:
a contact plug filling the contact hole; and
an interconnection line overlying the contact plug.

10. The borderless contact structure according to claim 1, wherein the contact hole exposes not only the impurity diffusion region but also a portion of the etch stop spacer adjacent to the exposed impurity diffusion region.

Cancel claims 11-17, without prejudice.